

DEVELOP National Program

2015 Fall Proposed Projects *(tentative, subject to change)*

NASA Center Locations

NASA Ames Research Center – Moffett Field, CA

- Lake Berryessa Water Resources: Lake Level Monitoring in Lake Berryessa Using Google Earth Engine and Earth Observing Imagery
- Puerto Rico Health: Utilizing NASA Satellite Imagery to Analyze the Effects of Climate Variability on Dengue Presence in Puerto Rico

NASA Goddard Space Flight Center – Greenbelt, MD

- Himalayan Disasters III: Utilizing NASA Earth Observations to Expand the Modeling Capabilities of the Landslide Identification Product and Hazard Assessment Model for Enhanced Landslide Detection in the Koshi River Basin
- Montana Ecological Forecasting: Utilizing NASA Earth Observations and LiDAR to Forecast the Effects of Climate Change on Goshawk Nesting and Post Fledgling Habitat

NASA Jet Propulsion Laboratory – Pasadena, CA

- Los Angeles Oceans: Remote Sensing Detection of Wastewater Plumes to Assess Public Water Quality in Los Angeles County
- Louisiana Ecological Forecasting: Examining Historic Trends and Modeling Sediment Transport in Delta Building at Wax Lake Using UAVSAR and AirSWOT Instruments to Inform Conservation and Restoration Efforts along the Louisiana Coast
- New Mexico Water Resources II: Investigating Rangeland Conditions in New Mexico Using MODIS-Derived Evapotranspiration Products

NASA Langley Research Center – Hampton, VA

- Arizona Health and Air Quality: Enhancing Extreme Heat Intervention and Preparedness Activities in Maricopa County, Arizona with NASA Earth Observations
- North Carolina Ecological Forecasting: Evaluating the Application of NASA Earth Observations to Rapidly Detect Change in Wetland Types at a Regional Scale
- Texas Water Resources II: Utilizing NASA Earth Observations to Monitor Drought Severity in Texas for Wildfire Mitigation Support
- Chile Agriculture: Mapping Food Crop Extent and Pest Risk for Targeted Management
- Peru Climate: Monitoring Temperature Change and Potato Crop Expansion in the High Altitudes of Peru
- CALIPSO Cross-Cutting: Improving CALIPSO Air Parcel Modeling and Database to Improve Smoke Plume Characteristic and Source Identification

NASA Marshall Space Flight Center – Huntsville, AL

- Lake Victoria Water Resources: Analysis of Lake Victoria Using NASA Earth Observations to Enhance Understanding of its Change Over Time
- Central America Ecological Forecasting: Using NASA Earth Observations to Monitor and Manage Ocelot Habitat Loss in Mexico and Central America
- Southwest Health and Air Quality II: Assessing the Spread of Sin Nombre Virus Vector-Borne Disease Using NASA Earth Observations in the Southwestern United States

NASA Stennis Space Center – Stennis, MS

- Southern Rockies Ecological Forecasting: Utilizing NASA EOS to identify and predict suitable mule deer habitats to aid Southern Rockies Landscape Conservation Cooperative (LCC) in habitat conservation and restoration planning

- Texas Disasters II: Utilizing NASA Earth Observations to Assist the Texas Forest Service in Mapping and Analyzing Fuel Loads and Phenology in Texas Grasslands

Regional Locations

USGS at Colorado State University – Fort Collins, CO

- Colorado Agriculture/Ecological Forecasting: Mapping Forest Species Composition at the Colorado State Forest State Park using Landsat 8 with Integrative Spatial Modeling
- Wyoming Ecological Forecasting: Using Landsat 8 and Aqua/Terra MODIS to target cheatgrass mitigation in a post-wildfire landscape in Wyoming

BLM at Idaho State University GIS TReC – Pocatello, ID

- Idaho Disasters: Juniper Encroachment and Management in the Western US Relative to Catastrophic Wildfires

International Research Institute for Climate & Society – Palisades, NY

- Malawi Health and Air Quality: Using NASA EOS to Understand the Impact of Flooding on Vector and Water Borne Diseases
- New York Health and Air Quality: Modeling of Near Surface Air Temperature Profile of Complex Urban Systems Based on Land Surface Properties
- ClimateReady Cross Cutting: Making Climate Data From NASA Earth Observations and Other Sources Accessible to the Public

Mobile County Health Department – Mobile, AL

- Natchez Trace Ecological Forecasting: Utilizing NASA Earth Observations to Assess Current and Historic Wetland Condition and Extent along the Natchez Trace Parkway

NOAA National Centers for Environmental Information – Asheville, NC

- Missouri River Climate: Utilizing NASA Earth Observations and NOAA Climate Data Records to model runoff in the Upper Missouri River Basin.

Patrick Henry Building – Richmond, VA

- Virginia Water Resources II: Monitoring Harmful Algal Blooms in the James River for Improved Water Management

University of Georgia – Athens, GA

- Antarctica Climate: Applying NASA Earth Observation Data to Assess Climate's Impact on Sea Ice Dynamics and Ecological Disturbance and Productivity in McMurdo Sound, Ross Sea, Antarctica
- Georgia Disasters II: Utilizing NASA Earth Observations to Monitor Sinkhole Development and Identify Risk Areas
- Southeast Ecological Forecasting II: Utilizing NASA Earth Observations and Proximal Remote Sensing for Mapping the Spatio-temporal Distribution of *Hydrilla* sp. sp.

Wise County Clerk of Court's Office – Wise, VA

- African Great Lakes Weather: Utilizing NASA Earth Observations to Locate Indicators to Help Predict the Deadly Storms Created over African Great Lakes
- Appalachian Agriculture: Utilizing NASA Earth Observations to Monitor Vineyard Health throughout the Essential Cycles of Growth within the Appalachian Region of Virginia
- Ethiopian Agriculture: Utilizing NASA Earth Observations to Help Estimate and Monitor Drought in Arsi, Ethiopia